

Abstract

A controlled deflection roll having a rotatable roll shell which is penetrated by a stationary shaft, a hydraulic bearing arrangement between shaft and roll shell, which is formed by individual hydrostatic bearing elements arranged axially beside one another, which each comprise a radially movable force element having an outer bearing pocket element, the outer bearing pocket element having a cylindrical outer bearing surface supporting the cylindrical roll shell hydrostatically on an inner shell circumferential line, and having an edge bearing unit provided at each end of the roll shell, the outer bearing pocket element (9) in each case being mounted hydrostatically on a spherical inner bearing surface (13) running concentrically with respect to the inner circumferential line of the roll shell (2).

(Fig. 1)